PRODUCT BRIEF
Intel® RAID Controller RS25FB044

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Low Cost SAS-2 with Mirroring, Striping and JBOD for Highly Scalable Solutions

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Product Overview:

The Intel® RAID Controller RS25FB044 is ideal for servers that include both direct attached storage (DAS) and external JBOD (Just a Bunch of Disks) storage. For example, a system may have a mirrored operating system and a mirrored application installed on internal drives along with data stored on drives within a JBOD external to the server. For such a system, the Intel RS25FB044 RAID controller provides SAS capability allowing for 6Gb/s and 3Gb/s SAS and SATA hard drives, Solid State Drives and SAS expander devices.

While many other SAS controllers drive large RAID software stacks between the host CPU and controller, the RS25FB044 utilizes the embedded CPU in the LSI 2308 ASIC to perform RAID 0, 1 and 1E/10 operations. An ultra-thin driver affords low RAID overhead, for high host CPU offload with excellent READ/WRITE performance.

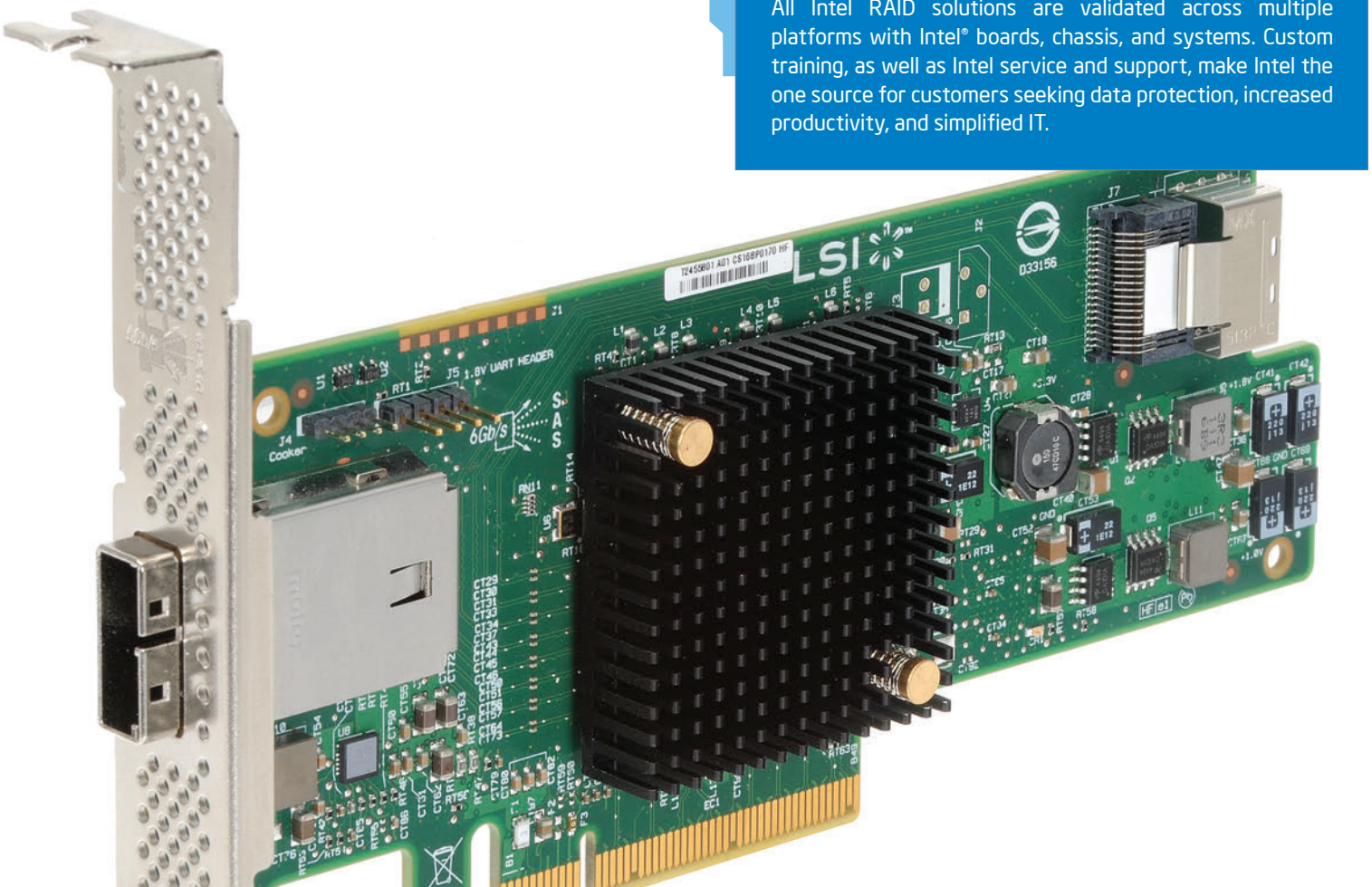
All Intel RAID solutions are validated across multiple platforms with Intel® boards, chassis and systems. Custom training, as well as Intel® service and support, make Intel the one source for customers seeking data protection, increased productivity and simplified IT.

Key Advantages:

- **Internal and External Connectivity** – Four internal ports allow for a mirrored RAID array within a system. Four external ports allow for connecting to a JBOD (Just a Bunch of Disks) or a SAS switch.
- **High Performance and Scalability** – PCI Express* Gen 3 architecture supporting over 700K IOPs. Employ JBODs with support of up to 244 physical devices, or RAID 0, 1, 1E/10 with up to 10 devices.
- **Cost Effective Data Protection** – Provides a low-cost RAID 0, 1, and 1E solution for entry-level server and workstation environments where high-performance and reliable data protection is required.
- **SAS or SATA Storage** – Connect SAS or SATA devices within the array. Use SAS drives for speed, reliability and scalability and use high-capacity SATA drives for budget-friendly storage.

Why Intel® RAID?

All Intel RAID solutions are validated across multiple platforms with Intel® boards, chassis, and systems. Custom training, as well as Intel service and support, make Intel the one source for customers seeking data protection, increased productivity, and simplified IT.

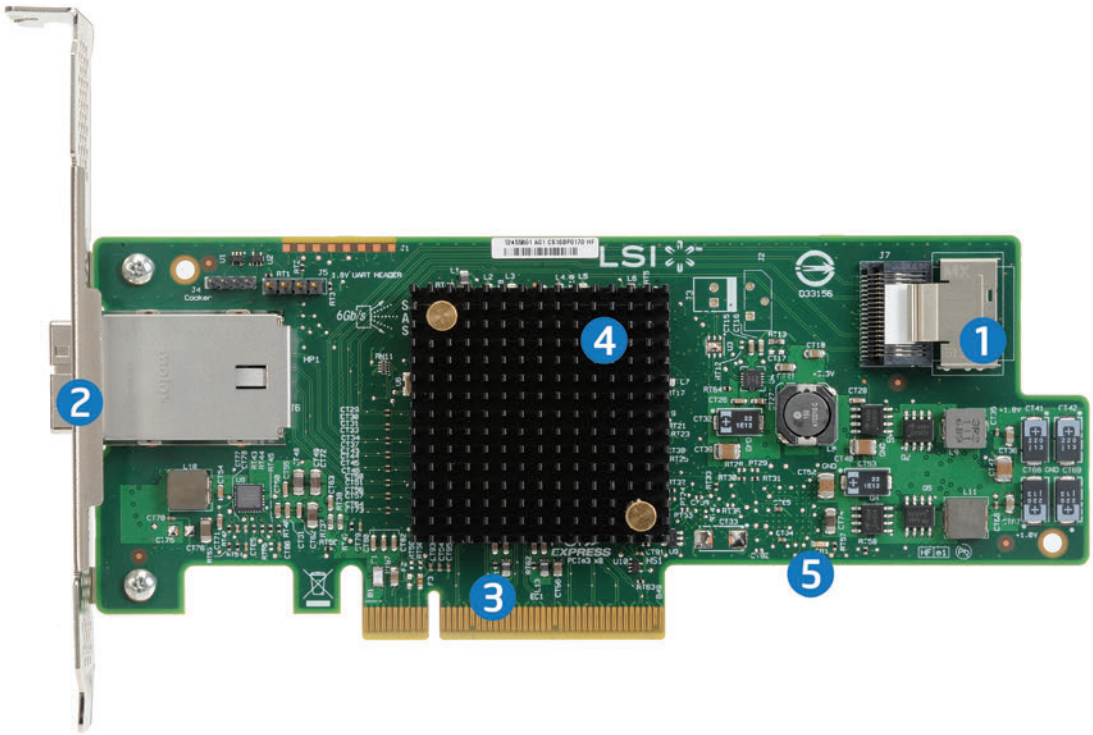


Intel® RAID Controller RS25FB044

Powered by LSI* MegaRAID® Technology

Features:

1. **One Internal 8087 SAS/SATA connector** for up to four internal ports
2. **One External 8080 SAS/SATA connector** for up to four external ports
3. **x8 PCI Express* Generation 3 interface** for fast communication with the server board
4. **LSI SAS2308 IOC controller** providing SAS 2.0 compliance including 6Gb/s data transfer and compatibility with SAS or SATA drives
5. **Heartbeat LED that blinks green** to indicate that the card is ready and capable for general activity.



Technical Specifications:

Product Order Codes	RS25FB044
Compatible Server Boards, Systems and JBODs	Compatible with most Intel® Server Boards and Systems for the Xeon® E5 processor, Intel's JBODs (planned launch September 2012) and a wide number of third party-based servers and JBODs
Data Protection Feature Highlights	Distributed Sparing Hot Spare Support Expander Support Background Consistency Checking Enclosure Management S.M.A.R.T. Support RAID Support Before Operating System Loaded
Intel® RAID Software	Intel® RAID Web Console 2 Intel® RAID Command Line Tool Intel® RAID Flash Utilities
I/O Processor	LSI SAS2308 SAS Controller
Drive Types	SAS 6Gb/s, SAS 3Gb/s or SATA 3Gb/s
Maximum Devices / Drives	Non-RAID: 256 Integrated RAID (IR): 14 spread across 2 volumes RAID 0: 10 per volume RAID 1: 2 per volume plus hotspare RAID 1E: 10 per volume RAID 10: 10 per volume
Connectors	One 8087 Mini-SAS internal connector and one 8088 external connector
PCI Interface	x8 PCI Express* 3.0
Form Factor	Low Profile, MD Compliant
Data Transfer Rates	Up to 6Gb/s per port and a cumulative bandwidth of up to 4000 MB/s
Operating System Support	Microsoft Windows, Linux (SuSE , Red Hat), Solaris, VMware, FreeBSD See http://www.intel.com for details on versions and support
Operating Temperature	Maximum ambient: 50°C
Operating Voltage	+12V ±10%
Standard Warranty	3 years, AWR option

For more information on how to make the Intel® RAID Controller RS25FB044 part of a successful storage solution, visit: **www.intel.com/go/RAID**

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